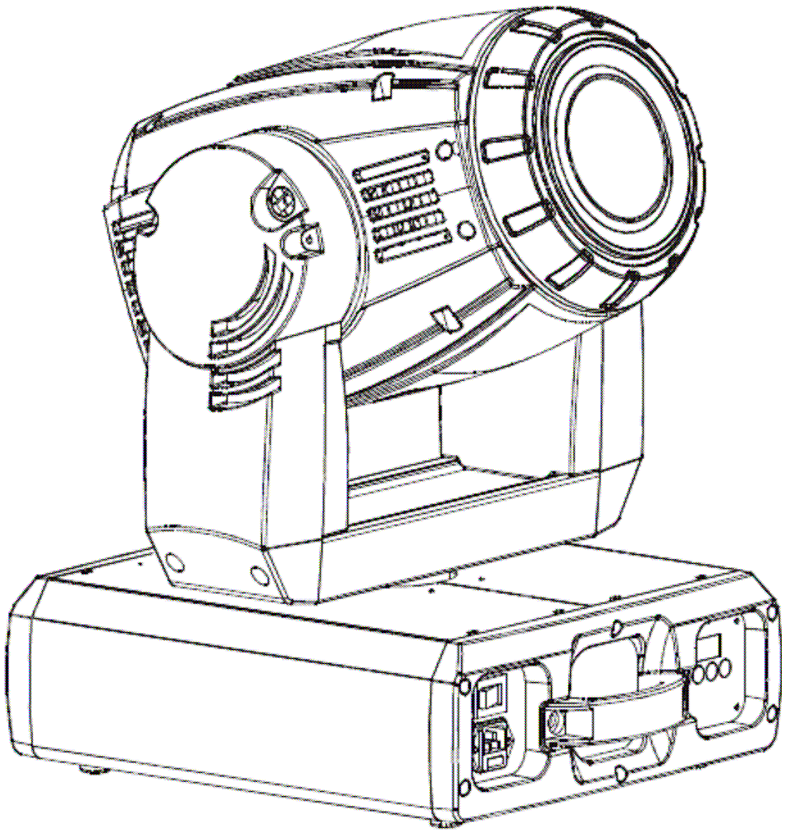
# User Manual

## MOVING HEAD

## MODEL: *575W*



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# IMPORTANT TERMS:

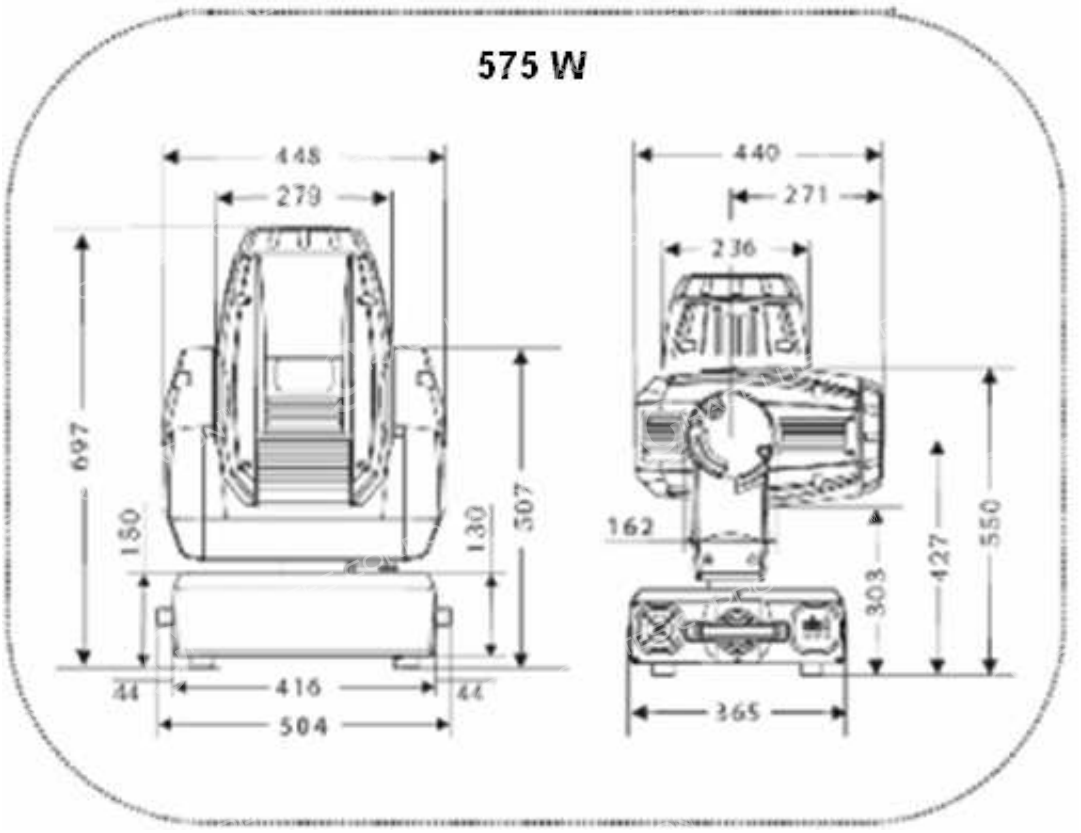
This manual covers important information about installation and operation of this moving head. Please read this manual carefully before installing and operating this Moving Head. Follow the safety precautions listed below:

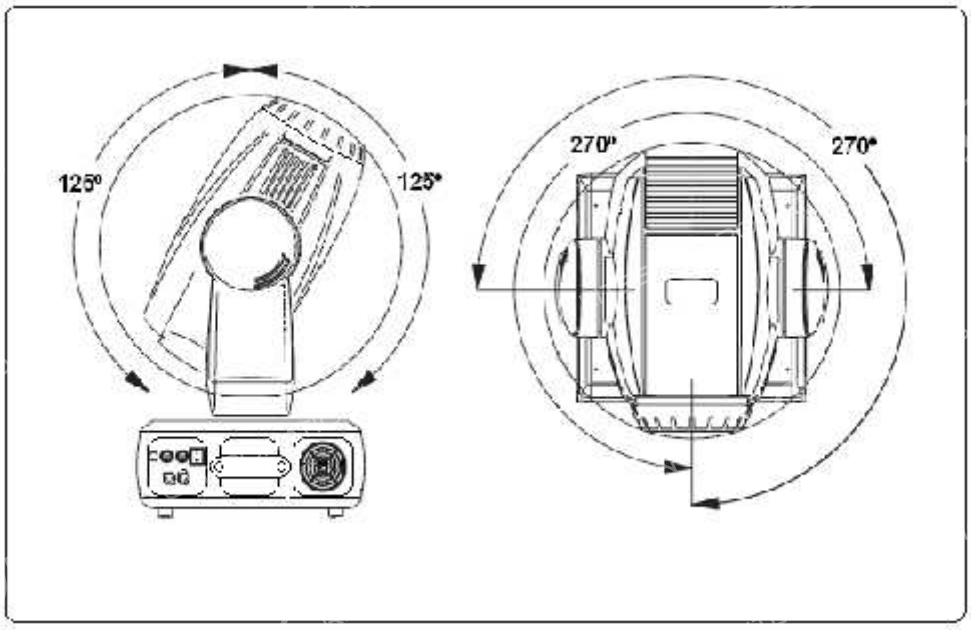
A. Read this manual carefully and keep manual near moving head.

B. Follow the safety regulations mentioned in this manual when operating or installing this fixture.

C. Warranty is void if the product is misused, damaged or modified in any way, or for unauthorized repairs or parts

D. For maintenance or lamp replacement, disconnect the fixture from main power before opening the moving head.




125°
125°
270°
270°

# G·LITES 575W

# INTRODUCTION

Thank you for choosing **G-Lites** products. Our products are created to satisfy your highest expectations and complete quality control.

This manual covers important information about installation & operation of this moving head. Please read this user manual carefully before installing or operating this product. Please carefully follow the safety instructions listed below and keep this manual in a safe place for future reference.

**Note: As part of our ongoing commitment to continuous products update, the company will keep the right to improve this product; the information in this menu may be changed without notice.**

**Transportation**

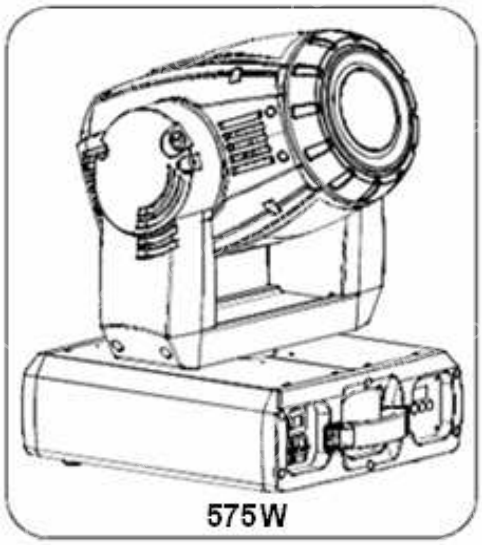
Please be sure to lock the head before transportation.

**Cardboard box:**
The cardboard box is not designed for repeated use and for transportation of the fixture; we recommend the use of our **fixture** cases.

**Single flight case:**
The **fixture** case is made of plywood and is designed for safe transportation and protection of the moving head. They include caster wheels with lock and handles.

**1. Packing**
Unpack the moving head and verify that it arrived complete and without any damage. The shipping carton contains the following accessories:

| Accessories | |
|---|---|
| Lamp | 1 pc |
| Signal Cable | 1 pc |
| User Manual | 1 pc |
| Clamp brackets | 2 pcs |
| Hand safety bolt | 4 pcs |
| Safety wire | 2 pcs |



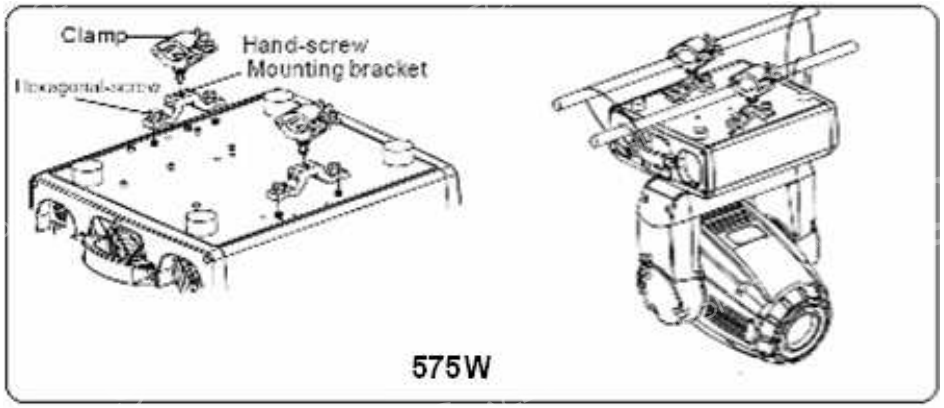

| DMX cable | User manaul | Mouting Bracket | Safety cord | Hexagonal-screw |
|---|---|---|---|---|
| | | | | |

## 2. Installation and safety operation

- Installation Requirements
  Please make sure to fasten the mounting bracket firmly before installing. The mounting bracket must share the weight 10 multiple weight of the moving heads.

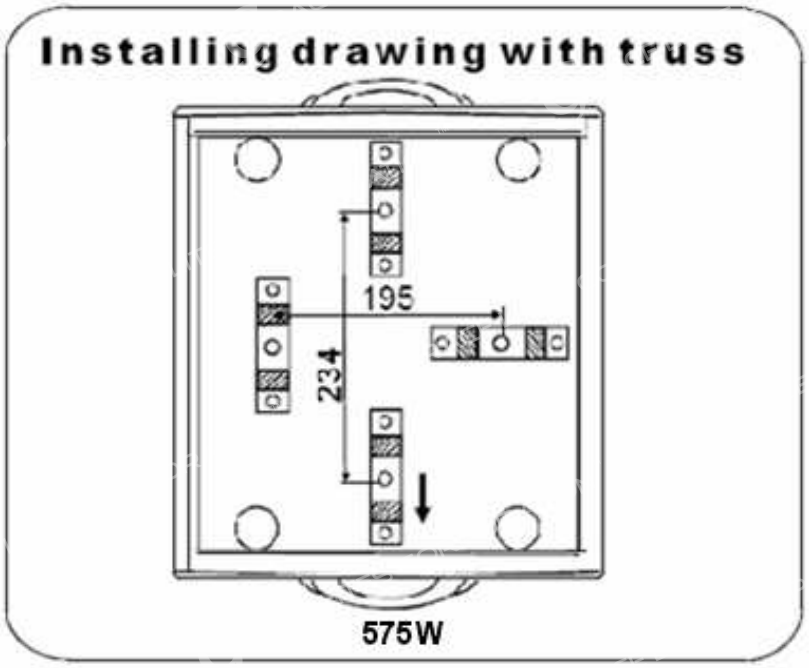
- Connect the mounting bracket and fix the clamp firmly to the truss in order to avoid the moving head from getting loose or falling down.

- The moving head should be mounted with appropriate clamp by using 2 bolts. The mounting bracket itself is attached to the bottom of the moving head with 4 bolts provided in the package. Always make sure that the moving head is anchored firmly to avoid any vibration or fall.

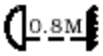



- For safety purposes the moving head should be connected with the safety cable ends by looping the cable over the truss, running it through the truss and the handle of the moving head .The safety cable will fasten the moving head on the truss tightly to avoid any vibration or falling.

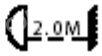
  - When installing the moving head, do not allow anyone nearby.
  - After installing the fixture, weekly inspection of the safety cable, clamp or truss are necessary to moving head from slipping. If any accidents occur, the manufacturer is not at fault.




- **Other safety terms**
  Maintain minimum distance of 0.80 cm (3.28 Feet) from combustible materials.



Picture 16



Picture 17

- Observe minimum distance to lighted objects of 2.0 meters (6.6 feet)
- Do not mount on a flammable surface. Keep flammable objects at least 1 meter away from fixture. Do not light objects closer than 1 meter.
- Replace fuses only with the specified type and rating.
- **Ambient temperature:**
  In order to ensure proper fixture operation, the room temperature must be higher than 33° and no lower than 2°
- **Surface temperature**:
  Equipment surfaces may reach temperatures up to 100° C (212° F). Allow 5 minutes for cooling before handling.

- **Electric shock & static protection:**
  These moving heads are designed to work and depend on the electric shock protection. The moving head should be connected with the power supply system. The moving head's ground cable should be connected with the ground cable of the power supply system. The ground mark of the fixture metal cover should be securely connected with the installation bracket.

- **Connect the main power supply:**
  Connecting of the main power supply should be done by a professional.

- Please check the voltage, frequency data of power supply system of the moving head to avoid different voltage or melting.

- Please refer to the actual wattage allowed of the moving head's lamp. Multiply 1.5 total quantity of the moving head then you could get the minimum power loading. If your power cable can't share the minimum power supply loading. Do not connect all the moving heads

## 3. Lamp replacement

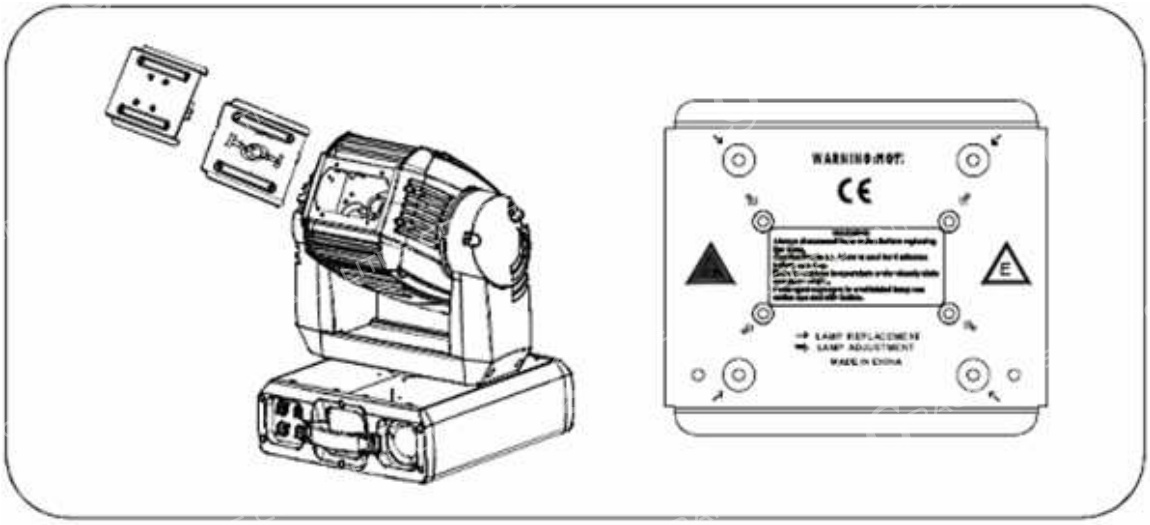
### Lamp Description

| Model | Lamp Description | | |
|---|---|---|---|
| 575W | Philips<br>MSI 575W HR<br>6000 K 1000 Hr | Osram<br>HMI 575W /GS<br>5600K 1000 Hr | Yembo<br>HMK 575W<br>4800 K 100+ Hr |

### Lamp Replacement

**Warning:**
**Disconnect the power supply before replacing the lights.**

Open the lamp access panel at the rear of the moving head by undoing the 4 hand-operated screw .Then you can begin to replace the lamp. Pull out the old lamp from the lamp bracket and then plug in the new lamp. Remount the lamp bracket and fasten the screw at both sides tightly or the lamp's loose connection will result in high tension short circuit or electric discharge which will effect the lamp life or damage the PCB board. When replacement is complete, close the cover and fasten the screw at both sides tightly.



**Lamp features**
HMI series lamp is a high-voltage recharge lamp. Always be careful when handling the lamp before operating. Please read the following information carefully. Manufacture will not be responsible for misuse or incorrect operation.

# Warnings:

**Warning 1:**
Disconnect the power supply if there are no lamps fixed inside the fixture. Or it will melt down the fixture.

**Warning 2:**
Disconnect the power supply before replacing the fixtures.

**Warning 3:**
When the lamp is operating, its temperature will be extremely high. The feature of the recharge lamp can not work under the interruption power supply. Therefore, please let the lamp cool down completely (Approx 15 minutes at least).Then it's ready to operate again. Other wise, it will lead to high tension, short circuit or electric discharge. It may cause the part of the control board to burn down.

**Warning 4:**
All the lamps have its usage life, please inspect the lamp timing and ensure the lamp's usage life not to exceed the rated life span; otherwise, it may result in damaged, broken, deformation or blacken. If the lamp is broken, the impact will damage the moving head's spot system. The electric parts on the circuit board may cause cracks by the high voltage. The hot lamp fragments may injure people, explode, or set on fire.

**Warning 5:**
When the lamp is blackening, cracking, deformed or damaged, let the lamp cool down 15 minutes. If replacement of lamp is needed, read the user manual forwarded by the manufacturer.

**Warning 6:**
The inside temperature is much higher under normal working conditions. Do not touch the moving head with bare fingers. Negligence or misuse of directions in manual may lead to damage.

**Advertisement:**
Use the OSRAM or PHILIPS lamp is the first choice. (The average lift time of the OSRAM and PHILLIPS is 700 hours; the average lift time of other brand is 70-100 hours).

## 4. POWER SUPPLY & CONTROL

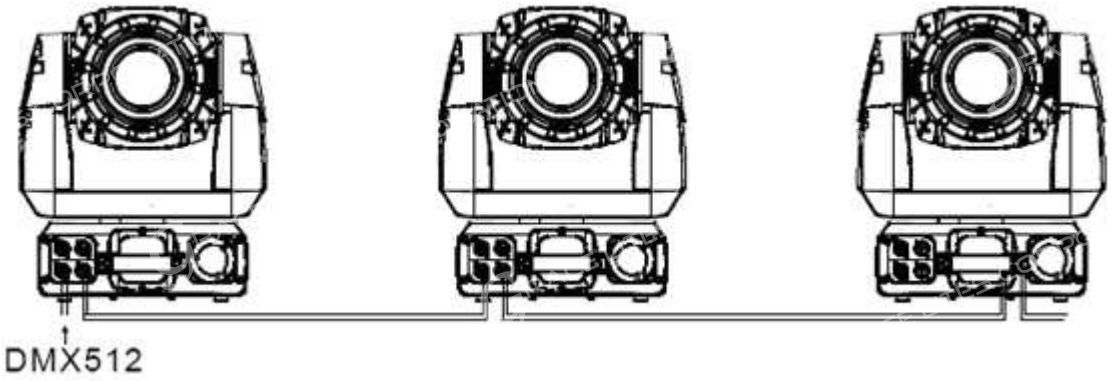
### 4.1. Power Supply Connection and Control

Use a professional plug to connect the moving head and main power supply. Pay attention to the voltage, frequency the same as mentioned on the moving head; suggest each fixture has an independent switch of the power supply so that it can be turned on or off.

| Voltage | 240V | 230V | 220V | 208V | 120V | 110V | Frequency | 50Hz | 60Hz |
|---|---|---|---|---|---|---|---|---|---|
| Matched | | | | | | | Matched | | |
| Model | | | | | | | | | |

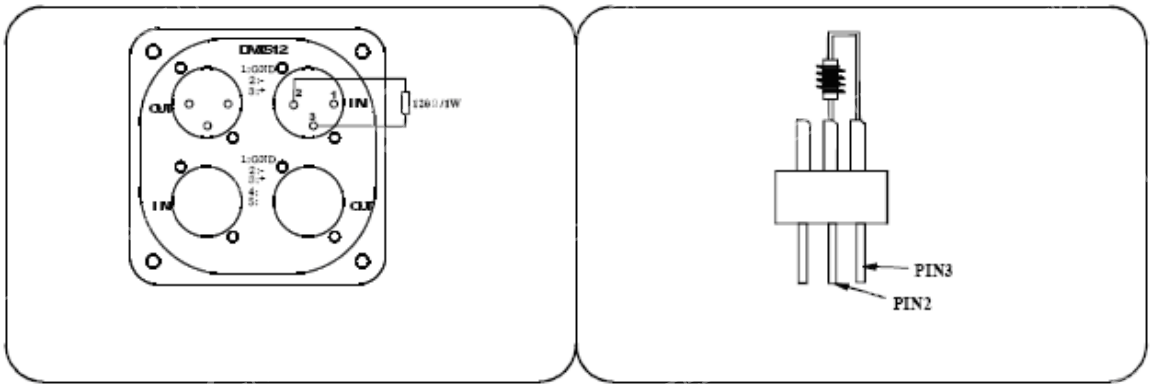
### 4.2. Signal connection

Please use the round 3-pin XLR plugs & sockets offered by manufacture to connect the first moving head's output to the second moving head's input and connect the second moving head's output to the third moving head's input and in the same way for the rest as shown below.



The moving head's control signal output or input by using the 3 pin or 5 pin XLR pug and socket. If need to lengthen the communication cable. Make sure that both sides of 3-pin plug are one to one (one to one, two to two, three to three). Otherwise, the communication cable will be interrupted. The communicate cable is 2-pin shielded cable 75 Ω RESISTANCE with each core is at least a 0.5mm diameter. (Caution: All the inside leading wire of 3-pin XLR plug can not touch each other or plinth).

We recommend using the DMX signal terminator for the installation to avoid electronic noise damage to the digital control signal. Simply speaking, DMX terminator is an XLR connector with a 120 /1w resistor connected across pin 2 and 3, which is then plugged into the output socket on the last moving head in the chain. Refer to the connection as below. We suggest using the DMX signal distributor when the distance of the fixtures is over 15meter.




### 4.3. Fixture Connection

After performing the above instructions and after making sure the moving heads have the appropriate lamps, press the power switch to check whether everything is working normally. The LED display will show the original DMX signal address. The moving head has a reset function. It means that if draw out the communicate cable or turn off the control 30 seconds later, re-draw in the communicate cable or turn on the controller. The moving head will be mechanically set (reset). The lamp will be fixture after connecting the power. Several minutes later the moving head will begin the mechanical positioning.

## 5. MOVING HEAD IP CODE PROGRAMMING

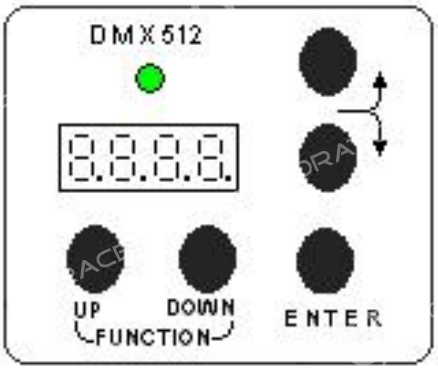
To make sure every moving head reacts to the control signal correctly, a digital starting IP code should be given to every G-Lites moving head. Digital starting IP code should be given to every G-Lites moving head. Digital Starting code is a channel number. By this number, the moving head should obey the command from the controller. Digital starting IP code is set by the operation panel, progressing to the starting IP value.

**FIRST FIXTURE'S IP CODE VALUE = (VALUE OF THE FORMER IP CODE) + (CHANNEL ON THE CONTROLLER)**

Note: The first moving head's starting IP code is 001.
Channel number on the controller should not be less than the channel number on the moving head.

## 6. MOVING HEAD IP FUNCTION SELECTION

There are 16 IP function selections on the G-Lites Moving heads. These functions could be selected by the operation panel.




## 7. DISPLAY MENU MAP:

| N | Description | Default | Up/Down key letter |
|---|---|---|---|
| 1 | DMX setting address setting | d.001 | d.512 |
| 2 | PAN normal/anticlockwise 180 degree setting | Pa.rl | PA.LE |
| 3 | TILT normal/anticlockwise setting | TI.Dn | TI.Up |
| 4 | Extend/compress channel setting | 16 bit | 8 bit |
| 5 | PAN/TILT run speed setting total 1-10 level | SPd 6 | SPd 1/10 |
| 6 | Lamp on/controller turn on setting | LAP y | LAP n |
| 7 | Display normal/inversion mode | dIP.P | dIP.A |
| 8 | Fixture working hours | H000 | |
| 9 | Key-press restoration enactment | rESt | |
| 10 | Interior electronic restoration enactment | rST.I | rST.I |
| 11 | Spare | F1-N | F1-Y |
| 12 | Self-test | F2-N | F2-Y |
| 13 | Master/slave mode | F3-N | F3-Y |
| 14 | Restore default setting of leave the factory | ------- | ------- |
| 15 | Dimmer function | dn-r | dn-n |
| 16 | Temperature contrast | T.Nar | T Hot / T.Col |

Setting the starting DMX code

1. PA.LE is left movement reverse
2. PA.RI is right movement reverse

1. TI.UP is up movement reverse
2. TI.do is down movement reverse

1. 16.bT is extended channel number
2. 8.bT is compressed channel number

Setting the maximum limit for XY speed movement
01 – 09

1: The Controller controls the lamp turn on/off (If you want the lamp to go off when pressing the key, you have to select this function)
2: Lamp turns on automatically when there's a power supply and turns off when there's no power. This is not controlled by the contr ler (If you want the lamp to switch on when pressing the key, you have to select this function)

1. dIP.P is the numerical code transfer on the normal direction display
2. dIP.A is numerical code transfer on the reverse direction display

Lamp hour

Reset units by clicking ENTER

1. Panel key controls the inner motor reset. The XY motor doesn't reset
2. Controller controls the inner motor reset. The XY motor doesn't reset

Spare

y = Self-test Autorun Mode

Spare

Factory default

Dimmer function r = Reverse
N= Normal

Working Temperature Environment
(tnor=normal, tHot=Hot and tCol=Cold)

# 8. DMX CHANNELS & PHOTOMETRICS

## 8.1. CHANNEL TABLE

| 8 Bit MODE | | 16 Bit MODE | |
|---|---|---|---|
| **Channel #** | **Description** | **Channel #** | **Description** |
| 1 | Iris / Reset | 1 | Lamp On / Reset |
| 2 | Color Wheel A | 2 | Color Wheel A |
| 3 | Dimmer | 3 | Dimmer |
| 4 | Shutter / Strobe | 4 | Shutter / Strobe |
| 5 | Pan Coarse | 5 | Pan Coarse |
| 6 | Tilt Coarse | 6 | Tilt Coarse |
| 7 | Beam Reflection Effect Rotation | 7 | Pan Fine |
| 8 | Cyan | 8 | Tilt Fine |
| 9 | Magenta | 9 | Pan / Tilt Speed |
| 10 | Yellow | 10 | Blackout movement / functions |
| 11 | CTO | 11 | Beam Reflection Effect Rotation |
| 12 | CMY/CTO Speed Adjusting | 12 | Cyan |
| ~ | ~ | 13 | Magenta |
| ~ | ~ | 14 | Yellow |
| ~ | ~ | 15 | CTO |
| ~ | ~ | 16 | CMY/CTO Speed Adjusting |

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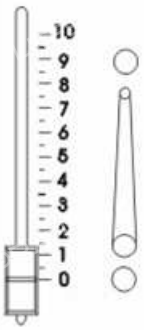
## 8.2 DMX PROTOCOL CHART

### Channel 1: Lamp On/Reset (8-16 Bit)

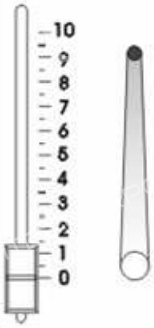


| BIT | Effect |
|---|---|
| 251-255 | Iris biggest(+)lamp on |
| 68-250 | Iris from big to small |
| 57-67 | Iris biggest |
| 52-56 | Iris smallest+delay25slamp off |
| 11-51 | Iris from small to big to small, speed became slow to fast |
| 6-10 | Iris smallest+delay25s reset |
| 0-5 | Iris biggest |

### Channel 2: Color Wheel A (8-16 Bit)

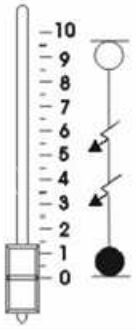
| Bit | Effect |
|---|---|
| 128-255 | Slow to fast rotation |
| 120-127 | Two color(pinkness+white) |
| 112-119 | Pinkness |
| 104-111 | Two color(blue+pink) |
| 96-103 | Blue |
| 88-95 | Two color(orange+yellow) |
| 80-87 | Orange |
| 72-79 | Two color(green+orange) |
| 64-71 | Green |
| 56-63 | Two color(purple+green) |
| 48-55 | Purple |
| 40-47 | Two color(yellow+purple) |
| 32-39 | Yellow |
| 24-31 | Two color(red+yellow) |
| 16-23 | Red |
| 8-15 | Two color(white+red) |
| 0-7 | White |

### Channel 3:Dimmer



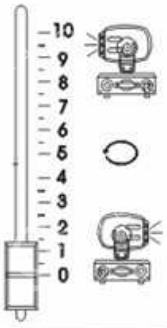
| Bit | Effect |
|---|---|
| 255 | Dark |
| 0 | Light |

### Channel 4: Shutter/Strobe (8-16 Bit)



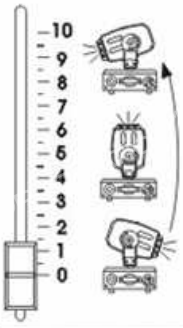
| Bit | Effect |
|---|---|
| 244-255 | Open |
| 116-243 | Strobe |
| 85-115 | Open |
| 53-04 | Minus pulse |
| 21-52 | Plus pulse |
| 0-20 | Close |

### Channel 5: Pan Coarse (8-16 Bit)



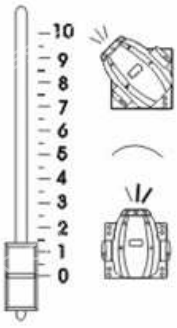
| Bit | Effect |
|---|---|
| 255 | 540° |
| 0 | 0° |

### Channel 6: Tilt Coarse (8-16 Bit)



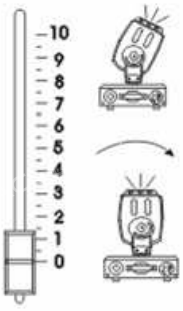
| Bit | Effect |
|---|---|
| 255 | 250° |
| 0 | 0° |

### Channel 7: Pan Fine (16Bit)



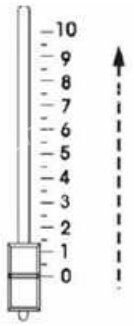
| Bit | Effect |
|---|---|
| 255 | 3.6° |
| 0 | 0° |

### Channel 8: Tilt Fine (16 Bit)



| Bit | Effect |
|---|---|
| 255 | 3° |
| 0 | 0° |

### Channel 9: Pan/Tilt Speed (16 Bit)



| Bit | Effect |
|---|---|
| 255 | Fast to slow |
| 0 | |

### Channel 10: Blackout movement/functions (16 Bit)

| Bit | Effect |
|---|---|
| 246-255 | No stopper |
| 206-245 | Nop |
| 166-205 | Nop |
| 126-165 | Color stopper |
| 86-125 | Nop |
| 46-85 | X/Y stopper |
| 6-45 | All stopper |
| 0-5 | No stopper |

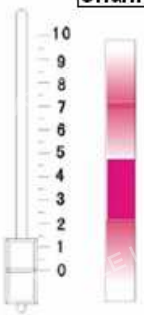
### Channel 11: Beam Reflection Effect Rotation (16Bit)
Channel 7 – 8 Bit

| Bit | Effect |
|---|---|
| 6-255 | Light bean deflection |
| 0-5 | White |

### Channel 12: Cyan
Channel 8 - 8 Bit

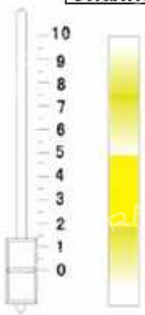
| Bit | Effect |
|---|---|
| 206-255 | Fast to slow |
| 201-205 | Obtain the deep color |
| 0-200 | Cyan |

### Channel 13: Magenta (16 Bit)
Channel 9 – 8 Bit



| Bit | Effect |
|---|---|
| 206-255 | Fast to slow |
| 201-205 | Obtain the deep color |
| 0-200 | Magenta |

### Channel 14: Yellow (16 Bit)
Channel 10 – 8 Bit



| Bit | Effect |
|---|---|
| 206-255 | Fast to slow |
| 201-205 | Obtain the deep color |
| 0-200 | Yellow |

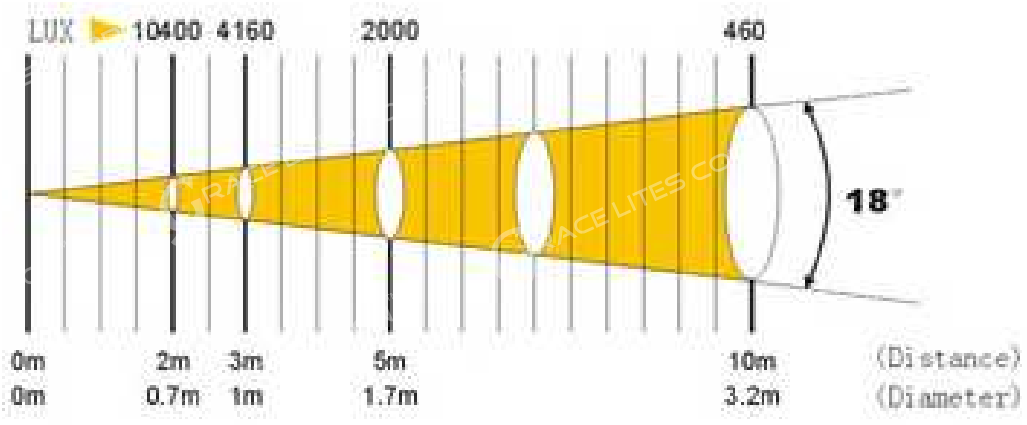
### Channel 15: CTO (16Bit)
Channel 11 – 8 Bit

| Bit | Effect |
|---|---|
| 206-255 | Fast to slow |
| 201-205 | Obtain the deep color |
| 0-200 | K(CTC) |

### Channel 16: CMY/CTO Speed Adjustm
Channel 12 – 8 Bit

| Bit | Effect |
|---|---|
| 251-255 | Fastest |
| 0-250 | Fast to slow |

## 9. LUMINOUS INTENSITY



# MAINTENANCE

This chapter includes information on replacing parts, and cleaning the fixture. This fixture must be serviced by qualified personnel. The information listed in this chapter is intended to assist qualified personnel *only*.

## Important Information:

- Disconnect the fixture from power before servicing.
- Exterior surfaces can reach 200˚ C and interior surfaces can exceed 250˚ C. Allow the fixture to cool for five minutes before touching any surface.
- Always wear hand and eye protection when servicing the fixture.
- Do not touch the lamp with bare fingers. The oils from your skin can damage the lamp and cause it to explode. If the lamp is accidentally touched, clean it immediately with a soft cloth and isopropyl alcohol ($(CH^3)^2CH0H$).
- Clean the lens and dichroic filters on a regular basis. Do not use any type of solvent since it may damage the fixture, just use a clean cloth.
  It is not recommended to use the fixture for more than 4 hours.
  Continuous use will shorten the life of the lamp.
- Clean your fixture on a regular basis. Dust, fog and smoke particles can accumulate and cause malfunctions.
- To clean the exterior surfaces, wipe with a soft lent-free polyester cloth or use a small vacuum to remove any built-up dust and dirt. Do not use a blower because it will force foreign particles into the fixture.
- For optimal cleaning, use a mixture of 70% alcohol to 30% water for the initial cleaning. Then clean the same parts with 100% alcohol.

# TECHNICAL DATA

## LAMP

Yembo HMK 575 W (Complementary lamp Included) **.
Osram HMI 575 W/GS (6000 K).
Philips MSI 575 (5600 K).
Average Lamp Life:
**Yembo: 75+ hours (less 30% lux).
Osram: 750+ hours
Philips: 750+ hours

## COLOUR

8 main colors (7 + 1 white) + 8 mixed colors, achieving high speed single way rainbow and scrolling effect.
CMY + CTO color mixing.

## BEAM

Effect wheel: beam shaper.
Motorized iris.

## OPTICS

Motorized focus.

## DIMMER-STROBE

Mechanical linear DIMMER and 1-10 time/s high speed STROBE effect.

## PAN TILT

Pan 540° variable speed.
Tilt 250° variable speed.
Tilt lock.
Pan/Tilt w 8/16 bit resolution.
Automatic Pan/Tilt repositioning.
Precise adjustment on horizontal and vertical position.
Precise speed adjustment on horizontal and vertical position.

## INPUT

3 pin in and out DMX 512 signal.
16 Channel (16 Bit) or 12 Channel (8 Bit).

## SET UP

Separate motor debug remote control.
Separate DMX address functions remote control: stand, inverted, light on, light off.
Auto test all functions.
Display “flip” function 180° rotation.
Working temperature adjustment.

## POWER

Magnetic Ballast Version.
200V -220 V – 60 Hz.
100V -120 V – 60 Hz (optional).
220V -240 V – 50 Hz (optional).
Built-in over heat protection and high voltage protection.
PFC power factor compensation.
According to various kinds of safety standards, IP20 protect grades, the cable accords to CE20/22 standard.

## CONSUMPTION

Power Consumption: 680 W.

## DIMENSION

L470mm W365mm H697mm.

## WEIGHT

40 Kg

# General Troubleshooting

This Chapter provides information on diagnosing and solving operational problems. If a solution to your problem cannot be found in the following subsections, contact your authorized dealer or **LED-G** technical Support.

**Unit functions but lamp does not strike**:

- Make sure the correct lamp has been installed in the fixture.
- Check for loose igniter or power supply connection.
- Replace lamp.
- If lamp is still hot from recent operation, leave the unit turned on and when the lamp's temperature drops, it will restrike.

**Color system is not producing the correct color**

- Replace the lamp.
- Clean optics.
- Re-home the fixture

**Unit is producing unexpected results**

- Check DMX starting address on the fixture and console match.
- Verify that the last fixture on the link is terminated.

**Unit is not responding to console:**

- Verify that the fixture has the correct DMX address
- Check and replace data cables
- Verify that the last fixture on the link is terminated.

**Unit is not moving**

- Check if the power supply is suitable for the voltage of the fixture.
- Replace sensors.
- Please checks if the inside lead wire and the connector are loose.
- Please check the electric part (such as the switch, transformer, ballast, electric capacity, piezo resistor, filter, PCB board, controller to motor).

**Pan or Tilt position is off:**

- Verify that all belts are tight.
- Home the fixture.